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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/072,429	02/07/2002	Jacques Fagot	1759.071	2615

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EXAMINER

BLAU, STEPHEN LUTHER

ART UNIT	PAPER NUMBER
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3711

DATE MAILED: 03/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/072,429

Applicant(s)

FAGOT, JACQUES

Examiner

Stephen L. Blau

Art Unit

3711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 February 2005.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,4 and 6-16 is/are pending in the application.
- 4a) Of the above claim(s) 3,4,6,9,10,13 and 14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 7-8, 11-12 and 15-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 8, 11-12, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Peters in view of Besnard.

Peters discloses a set of club irons each iron of a set having a head, a head having a rear face, a rear face having a cavity bounded by a plurality of walls, wherein a plurality of walls comprises at least one lower wall forming a sole and an upper wall, an upper wall having a plurality of faces, a plurality of faces comprises a rear face, an upper face (Figs. 20-22), a lower face facing the cavity and a plurality of lateral faces, at least one recess in the lower wall in the form of where weight inserts attached (Ref. Nos. 174, 176, 178), a recess being elongated in a main direction of a lower wall (Ref. Nos. 174, 176, 178) at least one recess opens onto a rear face of a lower wall, away from the upper and lower faces of the lower wall, wherein a volume of at least one recess varies from one iron to another, a volume of all the recesses changing, number of recesses changing (Figs. 20, 22), a recess being a small amount compared to the volume of a head (Figs. 20, 22), a set having a center of gravity varying in distance relative to an

Art Unit: 3711

upper face of an upper wall from one iron to another, and a center of gravity increasing in height from long irons to short irons (Figs. 30-31, Fig. 28, Col. 14, Lns. 60-61), and a set comprising at least three clubs (Figs. 1, 15). Peters does not specifically state that adding additional recesses or additional volume of recesses with weight inserts as shown between figures 20 and 22 would change the center of gravity but clearly an artisan skilled in forming a set of irons with different center of gravities as shown in figures 30-31 would have selected a suitable way to adjust weight distribution in the vertical direction in which using additional recesses of the same volume with weight inserts between irons in a set are included.

Peters lacks at least one recess in the upper wall and said at least one recess opens onto a rear face of an upper wall, recess being elongated in a main direction of an upper wall, a volume of the recess being between .4 and 5 % of the volume of the head, a volume of said at least one recess inside an upper wall varies from one iron to another within a set causing a gravity of each head to vary in distance relative to an upper face from one iron to another, the number of recesses or volume of recesses decreasing from long irons to short irons, and a set comprising at least three clubs.

It would have been obvious to modify the set of irons of Peters to have a volume of said at least one recess inside a lower wall varies from one iron to another within a set to cause a center of gravity of each head to vary in distance relative to an upper face of an upper wall from one iron to another and the number of recesses or volume changing from long irons to short irons in order to have weights added more protected by being in an insert compared to being attached to a sole as shown in figure 3 of Peters.

Besnard discloses at least one recess in the upper wall and said at least one recess opens onto a rear face of an upper wall, a recess being elongated in a main direction of an upper wall, and a volume of the recesses compared to a head (Figs. 9-10, 12) in order to position the center of gravity lower (Col. 2, Lns. 37-36). Besnard does not specifically state the volume of the recesses compared to a head volume as claimed but clearly there is one as shown in the figures an artisan skilled in forming a head with a low center of gravity using recesses in an upper wall would have selected a suitable volume for the recesses in which a volume of the recess being between .4 and 5 % of the volume of the head is included. In view of the patent of Besnard it would have been obvious to modify the set of irons of Peters to have at least one recess in the upper wall instead of the lower wall and said at least one recess opens onto a rear face of an upper wall, a recess being elongated in a main direction of an upper wall and wherein a volume of said at least one recess inside an upper wall varies from one iron to another within a set causing a gravity of each head to vary in distance relative to an upper face from one iron to another and the number of recesses or volume of recesses decreasing from long irons to short irons in order to simplify the assembly process by having fewer parts (i.e. no weight inserts). In view of the patent of Besnard it would have been obvious to modify the set of irons of Peters to have a volume of the recess being between .4 and 5 % of the volume of the head in order to have a sufficient amount of weight removed from a top of a head to lower the center of gravity a sufficient distance. In view of the patent of Besnard it would have been obvious to modify the set of irons of Peters to have a set comprising at least three clubs in order to utilize the method of adjusting the center of gravity vertically minimizing the number of different materials for more than just two clubs.

3. Claims 7 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Peters in view of Besnard as applied to claims 1, 8, and 11-12⁺¹⁶ ~~8~~ above, and further in view of JP 07213656 and Fenton.

Peters lacks the recess being filled with a low-density material of polyurethane foam. JP 072113656 discloses mounting impact absorbing material on a top edge of a back of an iron to improve feeling (Abstract, Constitution). Fenton discloses an impact absorbing material placed in a recess on a back of an iron being polyurethane (Abstract) in order to have a softness and elasticity to create a substantial lessening of vibration while still having a toughness to prevent abrasion from scratching with resultant damage to clubs (Col. 1, Lns. 24-40). In view of the reference of JP 072113656 it would have been obvious to have the recess being filled with a low-density material in order to improve feeling by absorbing vibrations. In view of the reference of Fenton it would have been obvious to have the recess being filled with polyurethane material in order to have a softness and elasticity to create a substantial lessening of vibration while still having a toughness to prevent abrasion from scratching with resultant damage to clubs.

Response to Arguments

4. The argument that the reference of Peters is improper in that Peters discloses a completed head with no recess is disagreed with. Applicants claim 7 claims a material filled in the recess and depends on claim 1 which claims a recess. If Peters does not disclose a recess than it is improper for the applicant to claim a recess for the embodiment where the recess is filled with a material. The argument that the reference of Peters is improper since Peters does not disclose

varying the higher density weighting from club to club within a set is disagreed with. One of the main points of Peters is to have the center of gravity changing in a set of irons (Fig. 31). In Peters, figures 20 and 22 clearly show different amounts of recesses on a rear face. For one skilled in the art to compare these figures it would clearly lead to the conclusion the head in figure 22 has more weight added to the bottom of the head compared to the head in figure 20. Since these are different embodiments one skilled in the art would clearly assume that given everything else being the same except the recesses, the center of gravity of figure 22 would be lower compared to figure 20 due to the greater weight at the bottom of the head. Finally one skilled in the art of making the set of heads of Peters for the set of 158 would have to figure out how to make the center of gravity change for the clubs in this set (158) with essentially the same head type. Figures 20 and 22 show the method of changing the volume of the weights added to the bottom of the heads. This would be an obvious method useable to one skilled in the art for set 158 though not specifically stated due to what the drawings teach and what experience one skilled in the art brings to the patent of Peters. The center of gravity for the heads of Peters for set 158 must be changed somehow. It is agreed that Peters does not disclose an unfilled recess in any rear face. However that is why the reference of Besnard was used to show that it is known to develop an iron head with a weight distribution produced by unfilled recesses. Both recess unfilled and filled will produce specific weight modifications to a head with no recesses. Both Besnard and Peters are using a similar technique of utilizing recesses filled and unfilled to produce a certain weight distribution. The argument that it is improper to use the reference of Besnard since Besnard fails to teach or suggest a volume of a recess varying from one iron to

another within a set is disagreed with. Peters shows how to change the center of gravity using filled recesses (Figs. 20, 22) and teaches the need to change the center of gravity of a head. Both unfilled and filled recesses at the top or bottom would be obvious choices. The argument that Besnard is improper in that Besnard does not disclose the volume of the recesses and the examiner unlawfully read in the applicant's limits into Besnard is disagreed with. Clearly Besnard will has a volume for the recesses. One skilled in the art would select suitable volumes as those that are claimed. And the why is to move sufficient amount of weight from a top of a head to lower the center of gravity a sufficient distance as stated in the Office Action. Lower center of gravities result in a higher dynamic loft. The argument that it is improper to use the reference of Peters since Peters adds material and thus weight and a recess omits material and thus weight is disagreed with. In both cases one skilled in the art would see it obvious to do other technigues to maintain the overall weight of a head at a certain value thought shifting the center of gravity vertically in a head. The argument that the Office Action points to no such suggestion, motivation or teaching in the prior art of record combining the teachings of Peters and Besnard is disagreed. The motivation does not have to come from prior art alone but can also come from one skilled in the art. The examiner provided the motivation which would be to change the center of gravity with a teaching which has fewer parts. Besnard's method of modifying the weight distribution does not require any add dense material but only removing material.

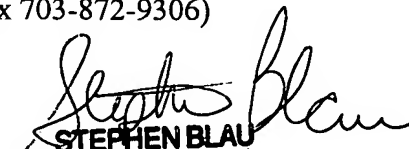
5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steve Blau whose telephone number is (571) 272-4406. The examiner is available Monday through Friday from 8 a.m. to 4:30 p.m.. If the examiner is unavailable you can contact his supervisor Greg Vidovich whose telephone number is (571) 272-4415. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0858. (TC 3700 Official Fax 703-872-9306)

slb/ 23 March 2005


STEPHEN BLAU
PRIMARY EXAMINER